



Regional Transmission Adequacy Guidelines

NTAC

December 13, 2005

PDX Conference Center

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Chair, NWPP Regional Transmission Adequacy

Objective

- Have uniform guidelines to plan the regional system as defined in the NWPP footprint
- Provide guidance on when and where to make cost-effective investments to meet existing deterministic NERC/WECC standards.
 - E.g., N-2 (Olympic Peninsula) and N-1-1 (Puget Sound, Redmond) for load service areas
- Expected results: One or more documents to supplement existing WECC, NERC, and utility reliability criteria

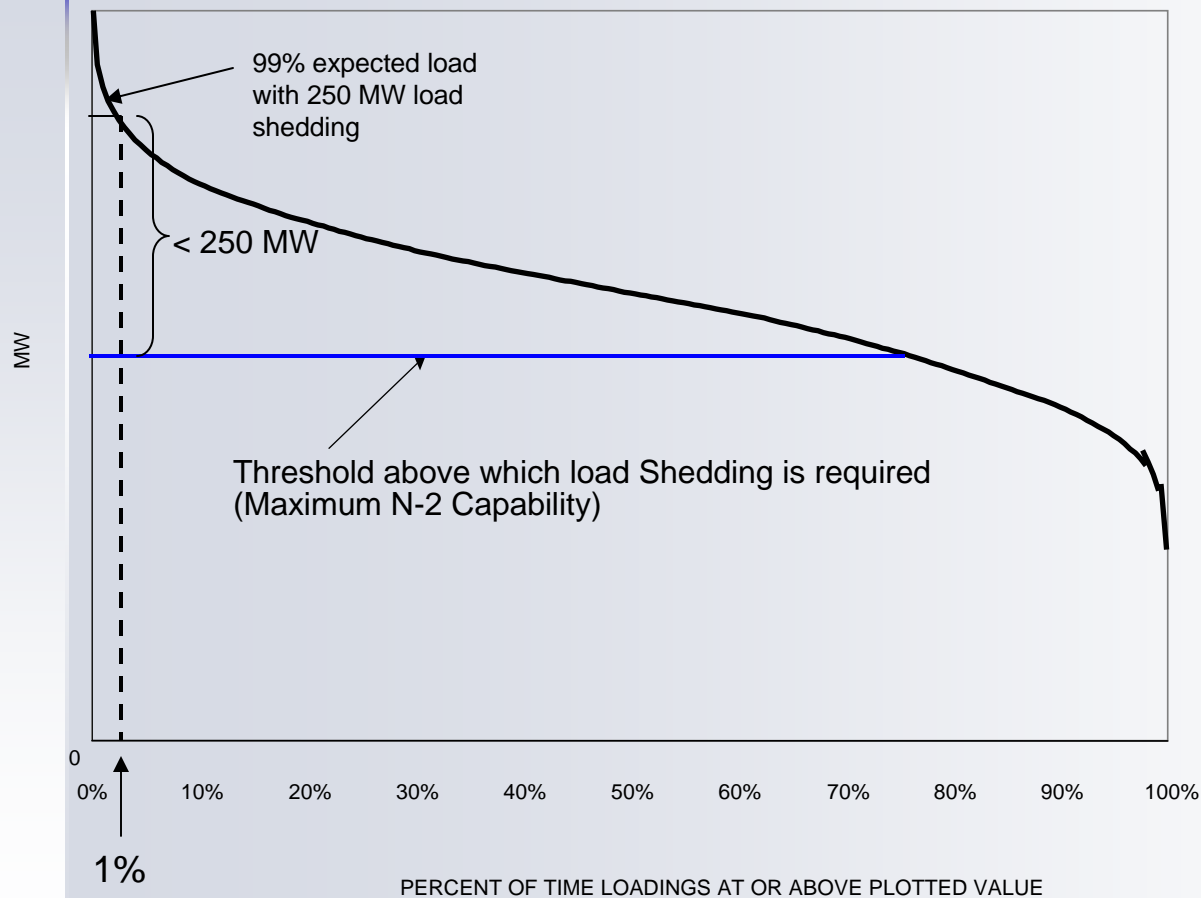
Draft Proposal for N-2

- Transmission adequacy for service to load areas under N-2 (Breaker Failure and Common Tower)*:
 - No cascading and maximum (controlled) load shedding of 250 MW allowed for load area
 - With load shedding, risk of unacceptable performance not greater than 1% of hours
 - Loss of area load should be planned and controlled
 - Perform Societal Benefit/Cost analysis
- Load growth may eventually trigger a fix (build or nonwires)

*: 230 kV and below. These guidelines do not address the 500 kV and 345 kV main grid which are covered by NERC, WECC and Utility criteria. Common ROW (CROW) is not covered under these guidelines. CROW will be addressed as part of N-1-1.

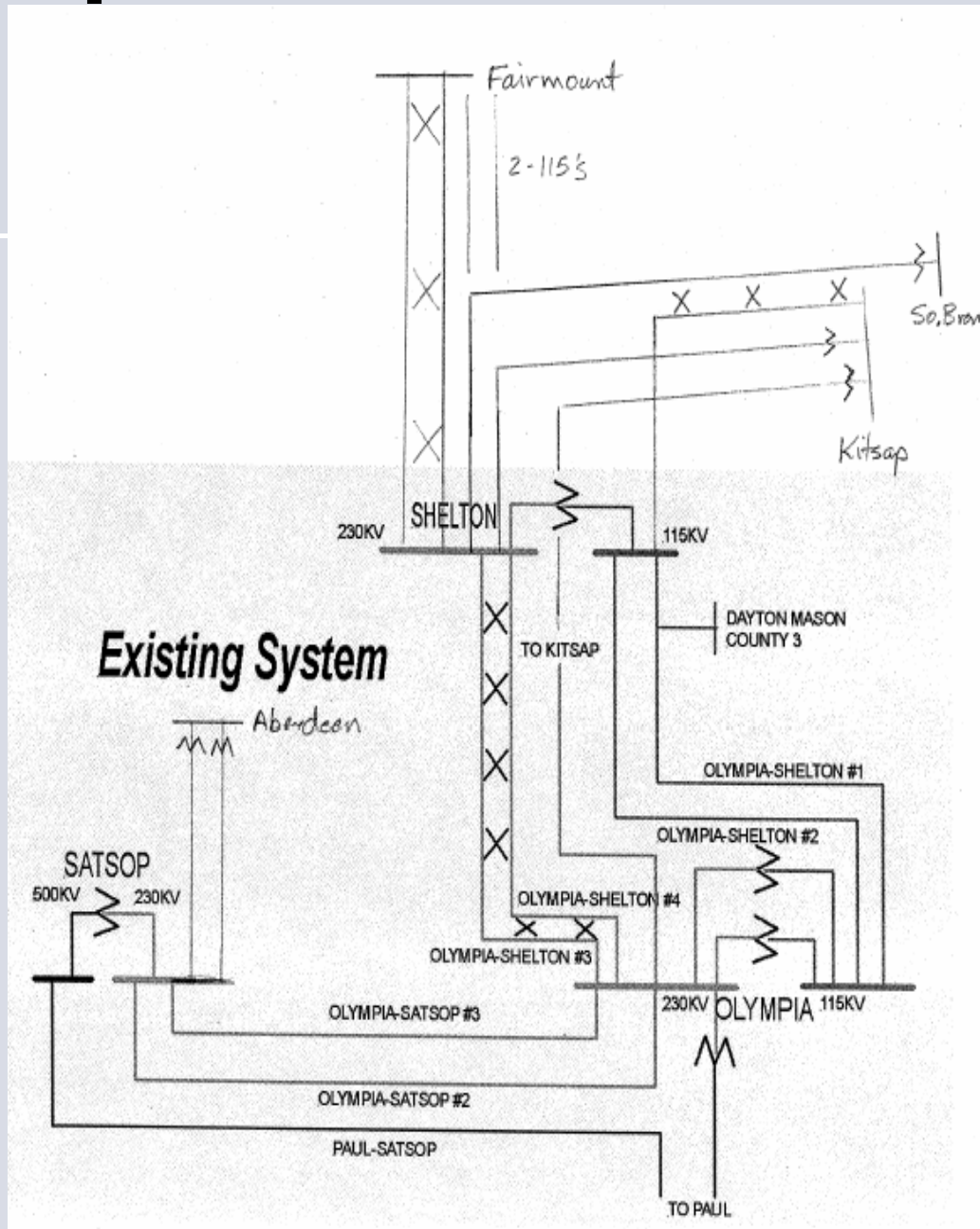
Disclaimer: Proposal still in works and not voted by the Steering Committee

Illustration (load center X)

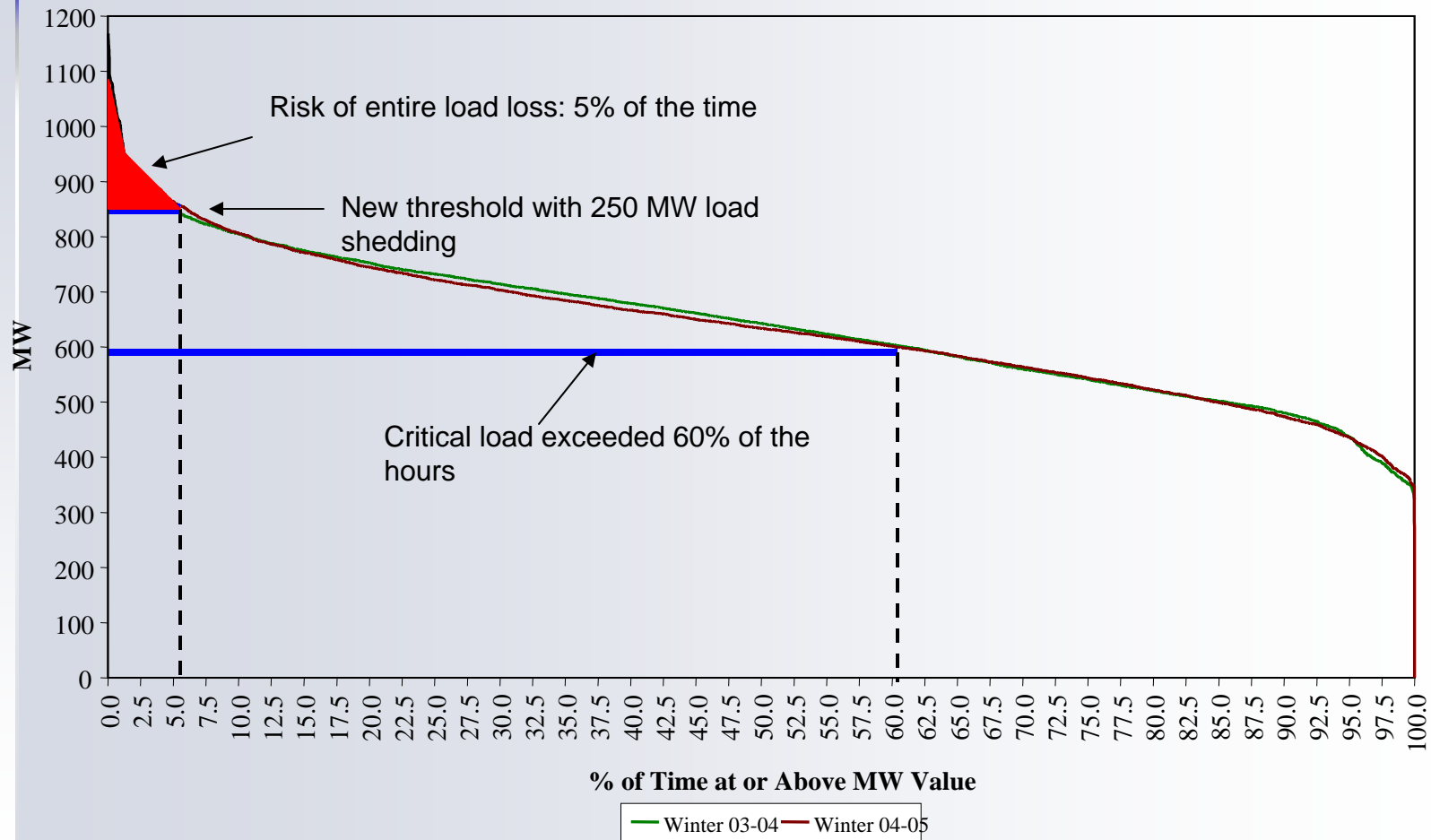


- Up to 250 MW:
Do nothing or
cost effective
fix
- > 250 MW:
Load shedding
up to 250 MW
to meet less
than 1%
exposure

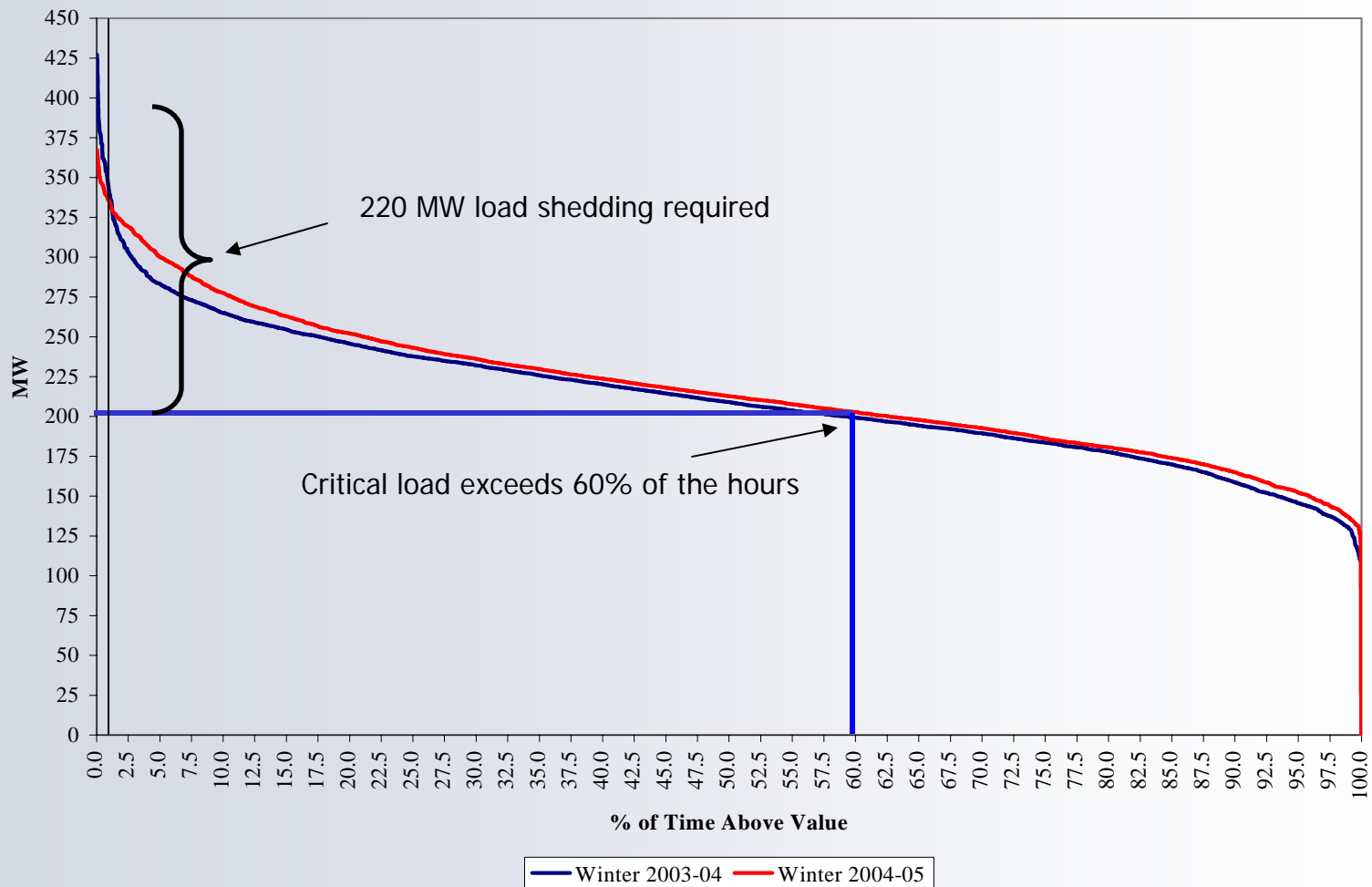
Olympic Peninsula



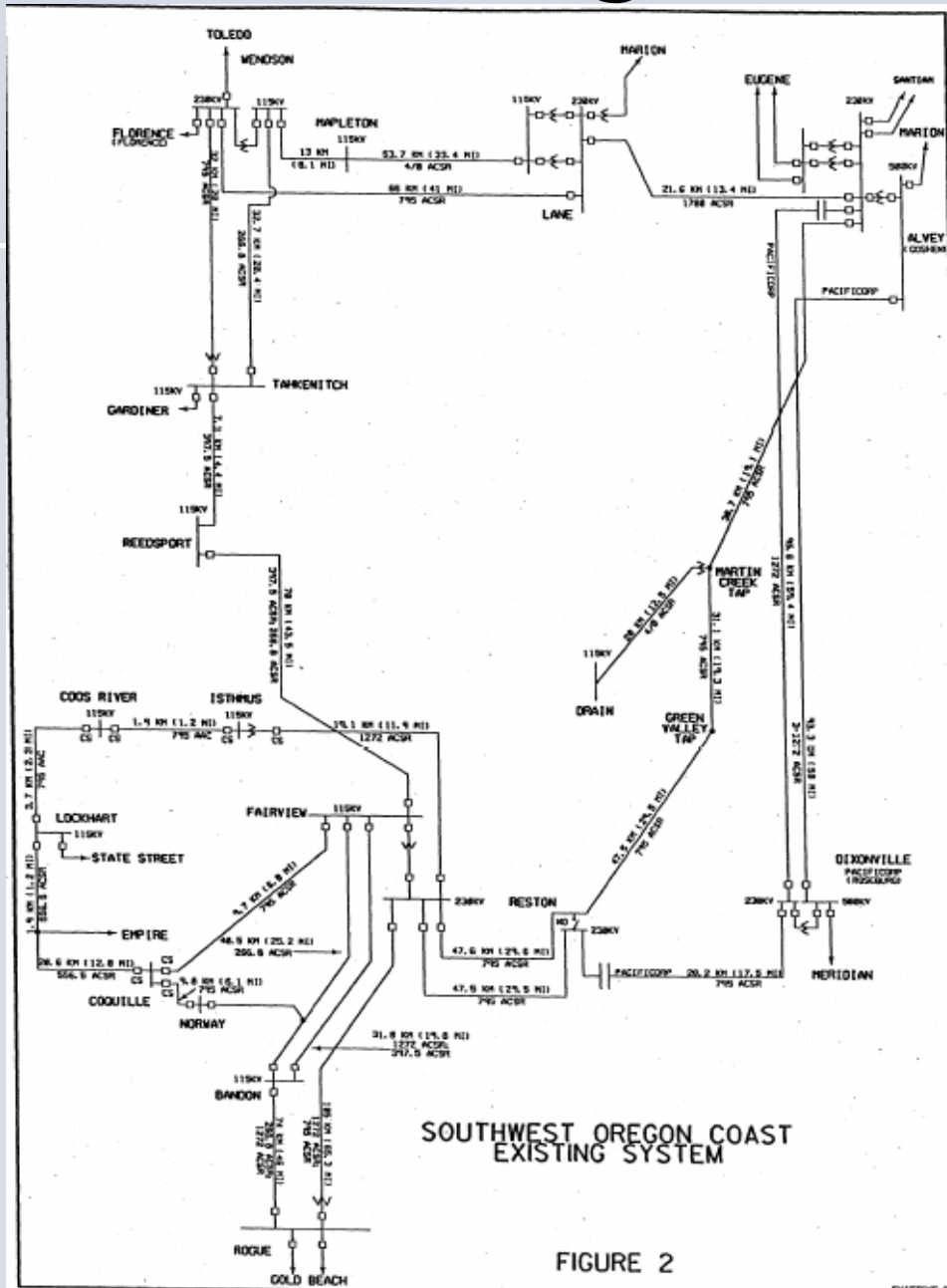
Olympic Peninsula Winter (Nov. – Feb.)



North of Shelton Winter (Oct. – Feb.)

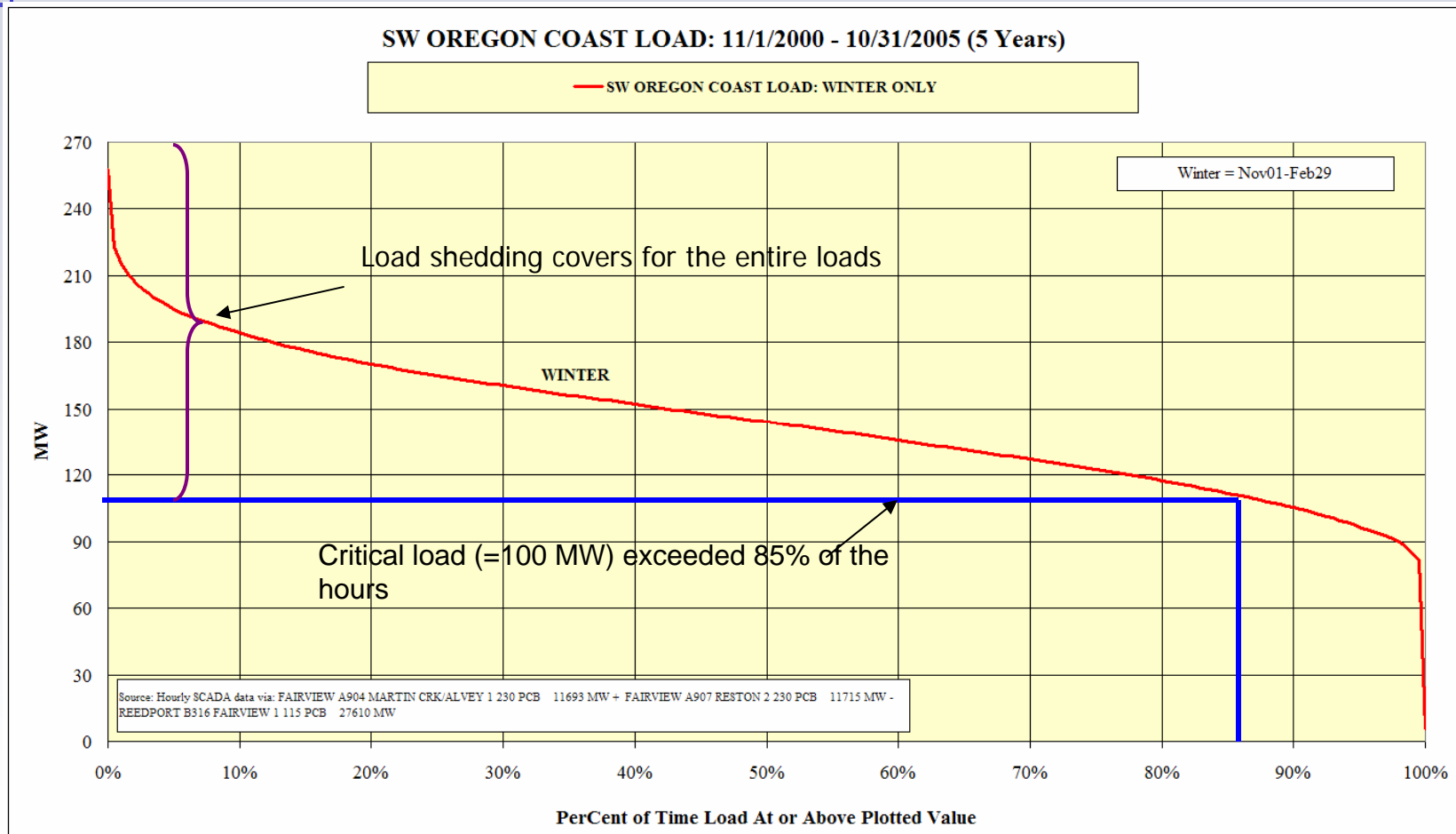


Southwest Oregon Coast



EXISTSYS.DGN

S Oregon Coast



Examples of Load Service Areas in BPA System

Load Service Area	Total Load	Load Shedding Amount
Aberdeen Area	290	145
Chehais	165	165
Okanogan	200	100
Olympic Peninsula	1170	600
N of Shelton	460	230
South Oregon Coast	300	200

1. Total load based on forecasted Winter Load
2. Load shedding amount is approximate based on preliminary studies

Next Steps

- Dec. 2005 – Jan. 5 2006
 - Refine proposal
 - Add examples to test the viability of the proposal
 - Brief the TASC members
- Jan. 2006
 - Approval for a wider audience review
- Jan. 2006
 - Continue to work on the remaining issues to be addressed